

the base, one submedian, rather behind than in front of the middle, the third towards the apex; the sides of the elytra destitute of carinæ, the apices rounded. Antennæ brownish, with the joints somewhat greyish at their bases, sparsely ciliate below, with the first and fourth joints subequal, each scarcely more than half as long as the third joint.

This species, of which there is but a single specimen in the collection, differs from all other recognized species of *Amphionycha* by the rounded sides of its elytra, which are devoid of carinæ. This character is met with in the allied West-Indian genus *Calocosmus*, but the remaining characters seem to me to unite the present species more closely with *Amphionycha* than with the latter genus.

Ærenica acutipennis (Chevr. MS.), n. sp.

Pube flavo-grisca omnino dense vestita; capite linea mediana impressa nigra; elytris apicibus acutis, singulis spina terminatis. Long. $18\frac{1}{2}$, lat. $4\frac{3}{4}$ mm.

Hab. Brazil.

Rather robust for the genus. Head, prothorax, elytra, and body underneath with a unicolorous dense yellowish-grey pubescence; the legs and antennæ with a darker grey pubescence, with the joints of the latter from the third somewhat fuscous towards their apices. Head with a median impressed naked line, which is more conspicuous towards the vertex. Antennæ sparsely pilose. Elytra with their apices acute, each terminated by a rather strong and sharp spine.

XLVI.—On the *Mollusca* collected by Mr. G. A. Ramage in the Lesser Antilles.—Report III.* By EDGAR A. SMITH.

THE collection which has recently arrived contains a few species of terrestrial *Mollusca* from Dominica and St. Lucia.

Those from Dominica are:—1. *Helix badia*, 2. *Bulimus multifasciatus*, 3. *Amphibulima patula*, 4. *Helicina rhodostoma*, 5. *H. fasciata*, 6. *H. platychila*.

As references to these species and their distribution have already been given in the previous Reports, it is unnecessary

* For Reports I. and II. see Ann. & Mag. Nat. Hist. 1888, vol. ii. pp. 227-234, 419, 420.

to repeat them here. The single specimen of *Helix* differs from those previously recorded, which were dark purple-brown. It is of a luteous tint, with a brown zone above and below the somewhat acute periphery; the penultimate and upper whorls are also dark brown. The *Bulinus* belongs to the same variety which is described in my second Report.

Two specimens which I regard as a variety of *Helicina fasciata* are pale at the apex, the rest of the upper surface being reddish and more or less freckled or reticulated with white, especially the last whorl. The lower surface is yellowish and the labrum bright yellow. In form and sculpture they are normal.

The three examples of *H. platychila* are unusually small, having an extreme diameter of 7 millimetres. They consist of five whorls as usual, are uniformly dirty whitish, in other respects agreeing with ordinary specimens.

The collection from St. Lucia contains only six species †, but of these four are new. This is not altogether surprising, for, so far as I can ascertain, the conchological fauna of the island has only been very casually investigated.

Until the year 1869 only two species had been recorded from this locality—*Helix orbiculata* and *Bulinus aulacostylus*—the latter and the four new species hereafter described being, so far as known at present, restricted to this island. Several of the other species occur also on one or more of the adjacent islands or even on the mainland of South America. Mr. Ralph Tate spent about two hours on St. Lucia in 1869, and was fortunate in collecting as many as twelve species; these were obtained in the neighbourhood of Castries, on the west side of the island. Mr. Ramage's specimens were all collected at "Fonds St. Jacques," the precise position of which I have been unable to discover.

As in previous Reports, I have appended a list of the known species, with references to some of the more important figures and their geographical range.

*1. *Helix (Dentellaria) orbiculata*, Férussac.

Helix (Helicogena) orbiculata, Férussac, Prodrom. p. 36. no. 86; id. Hist. nat. Moll. pl. xlvii. figs. 3, 4.

Helix orbiculata, Deshayes, Hist. nat. Moll. vol. i. p. 117; Pfeiffer, Conch.-Cab. p. 39. no. 424, pl. lxx. figs. 9, 10; Reeve, Conch. Icon. pl. lii. fig. 251; Drouët, Moll. terr. Guyane, p. 55; Tate, Ann. & Mag. Nat. Hist. 1869, vol. iv. p. 356; Mazé, Journ. de Conch. 1874, vol. xxii. p. 161, vol. xxxi. p. 10.

Hab. Forests of Cayenne and Guiana and Trinidad

† These are marked with an asterisk.

(*Férussac*); in gardens at Cayenne, also in the woods and other parts of Guiana (*Drouët*); Martinique, very abundant in all parts, especially in damp and shady places (*Mazé*); Guadeloupe, rare! (*Mazé*); St. Lucia (*Bland and Tate*).

The specimens from St. Lucia apparently do not differ from those occurring on the mainland in Guiana and present very little variation among themselves. Some have the spire rather more elevated than others and some slight difference in size is noticeable. The colour appears to be very constant and is well represented by the figures of Reeve and Pfeiffer. Young shells are deeply perforate and sharply keeled at the periphery.

*2. *Helix (Hadra) sanctæ-luciæ*.

Testa depressa, orbicularis, anguste perforata, tenuis, nitida, vinoso-cornea, ad peripheriam carinatum pallida aut virescens; anfractus 5, lente crescentes, superne convexiusculi, radiatim fortiter plicati, microscopice spiraliter striati; ultimus paulo supra medium carinatus, vix descendens, infra carinam leviter plicatus, striis incrementi aliisque concentricis tenuissimis sculptus; apertura lunata; peristoma vinoso-fuscum, anguste expansum et reflexum, supra umbilicum leviter dilatatum, marginibus callo tenuissimo junctis.

Diam. maj. 18 millim., min. 14½; alt. 9½.

This species is remarkable on account of the strongly plicate upper surface, which contrasts with the comparatively smooth base. The first two whorls forming the top of the spire are smooth and the plicæ gradually develop in thickness upon the remaining volutions. Upon the last whorl they are interrupted by the pale keel, and soon attenuate and become obsolete beneath it. The keel passes right round the whorl, but does not modify the regular curve of the labrum.

The foot of the animal is of a vinous tint and the mantle is conspicuously marbled with coal-black.

3. *Helix (Acanthinula) ierensis*, Guppy.

Helix ierensis, Guppy, Proc. Sci. Assoc. Trinidad, 1869, p. 242; Amer. J. Conch. vol. vi. p. 367, pl. xvii. fig. 4; Tate, Ann. & Mag. Nat. Hist. 1869, vol. iv. p. 356.

Hab. Trinidad (*Guppy*); Santa Lucia, "among rubbish of old walls and houses, Castries" (*Tate*).

4. *Helix*, n. sp.

Hab. Santa Lucia (*Tate*).

The existence of this species is merely casually referred to by Tate (Am. J. Conch. vol. v. p. 155).

*5. *Bulimus (Eurytus) aulacostylus*, Pfeiffer.

Bulimus aulacostylus, Pfeiffer, Proc. Zool. Soc. 1852, p. 59; Conch.-Cab. p. 114, pl. xxxv. figs. 5, 6; Monog. Hel. vol. iii. p. 316; Tate, Ann. & Mag. Nat. Hist. 1869, vol. iv. p. 356.

Bulimus lentiginosus, Redfield, Ann. Lyc. N. H. 1853, vol. vi. p. 14.

Hab. St. Lucia (Pfeiffer, Tate, Ramage); Trinidad and Demerara (Redfield, fide McMurray).

Tate (*l. c. supra*) states that this species is peculiar to the island of St. Lucia, but he does not mention the fact that it has been recorded from Trinidad and Demerara. However, it is not mentioned by Guppy in his list of the shells of Trinidad; and Bland (Ann. Lyc. N. H. New York, vol. vii. p. 361) remarks, "I am satisfied that the information afforded by the late Mr. McMurray as to the habitat (Trinidad and Demerara) of *B. aulacostylus* was incorrect." Until, therefore, its occurrence in those two localities receives confirmation it may be regarded as restricted to St. Lucia.

The largest specimen collected by Mr. Ramage is 43 millimetres in length, six longer than the type described by Pfeiffer.

*6. *Bulimus (Leptomerus) sancte-lucie*.

Testa elongata, anguste rimata, tenuis, epidermide fusco-cornea, paulo nitida induta; anfractus 7, convexi, primi duo oblique tenuiter costulati, cæteri lineis incrementi obliquis aliisque spiralibus puncturatis et setigeris ornati, sutura simplice sed profunda sejuncti; ultimus inferne et labrum versus pallidior, circa medium zona angusta, pallida, minime conspicua, cinctus: apertura parva, albida, longit. totius circiter $\frac{2}{5}$ æquans; peristoma tenue, haud expansum, margine columellari late reflexo, rimam subobtegente.

Longit. 21 millim., lat. 9; apertura $8\frac{1}{2}$ longa, 5 lata.

This species is somewhat intermediate in form between *B. chrysalis*, Pfr., and *B. martinicensis*, Pfr. It is, however, well distinguished by the sculpture of the apical whorls and the pilose punctured striæ of the rest. The reflexion of the columella also is different.

7. *Bulimus (Leptomerus) tenuissimus*, Férussac.

Helix (Cochlogena) tenuissima, Férussac, Hist. Moll. pl. cxlii b. fig. 8.

Bulimus tenuissimus, Deshayes, *op. cit.* vol. ii. p. 72; Reeve, Conch.

Icon. pl. xlv. fig. 288; Pfeiffer, Conch.-Cab. no. 340, pl. lxiii. figs. 25, 26; Tate, Ann. & Mag. Nat. Hist. 1869, vol. iv. p. 356.

Hab. Brazil, Cayenne (*Deshayes*); Trinidad (*Guppy*); St. Lucia (*Tate*); "Angostura" (*Pfeiffer*).

This species is common at Rio Janeiro on garden walls, among plants (*Hidalgo*).

8. *Stenogyra caracasensis*, Reeve.

Bulimus caracasensis, Reeve, Conch. Icon. pl. lxxix. fig. 580; Tate, Ann. & Mag. Nat. Hist. 1869, vol. iv. p. 356.

Hab. "Caracas, Orizaba, Vera Cruz (*Berendt*); Haiti (*Hjalmarson*); Panama (*Bland*)," fide *Pfeiffer*; St. Lucia (*Tate*); Grenada and Trinidad (*Guppy and Bland*).

9. *Stenogyra plicatella*, Guppy.

Stenogyra plicatella, Guppy, Ann. & Mag. Nat. Hist. 1868, vol. i. p. 438; Tate, *op. cit.* 1869, vol. iv. p. 356.

Hab. Trinidad and Grenada (*Guppy*); St. Lucia (*Tate*).

10. *Stenogyra coronata*, Guppy.

Stenogyra coronata, Guppy, *l. c. supra*, p. 439; Tate, *l. c.* p. 356.

Hab. Trinidad (*Guppy*); St. Lucia? (*Tate*).

11. *Stenogyra octona* (Chemnitz).

Hab. Dominica, Trinidad, and many other islands of the West Indies; St. Lucia (*Tate*).

12. *Leptinaria lamellata* (Pot. et Mich.).

Hab. St. Lucia (*Tate*).

For distribution and references see Ann. & Mag. Nat. Hist. 1888, vol. ii. p. 228.

13. *Succinea approximans*, Shuttleworth.

Succinea approximans, Shuttl. Bern. Mittheil. 1854, p. 147; Pfeiffer, Mon. Helic. vol. iv. p. 817.

Hab. St. Lucia (*Tate*); also Porto Rico, St. Thomas, Dominica, Grenada, and perhaps Guadeloupe.

14. *Cylindrella costata*, Guilding.

Cylindrella costata, Pfeiffer, Philippi's Abbild. vol. i. p. 183, pl. i. fig. 16, vol. ii. p. 52, pl. ii. fig. 8; Conch.-Cab. pl. v. figs. 4-6; H. & A. Adams, Gen. Moll. pl. lxxvi. fig. 7.

Hab. Barbados, St. Lucia (*Tate*).

*15. *Helicina Ramagei*.

Testa depresso conica, tenuicula, virenti-flavida, apicem versus rubescens, vel superne omnino rubescens, nitida, lineis longitudinalibus obliquis, *confertissimis, microscopicis* ornata: anfractus $4\frac{1}{2}$, convexiusculi, striis incrementi tenuissimis sculpti, ultimus ad peripheriam rotundatus; apertura leviter obliqua; peristoma tenue, expansum, intus paulo a margine incrassatum, ad columellam angulatum, marginibus callo tenui, semicirculari, nitido, junctis. Operculum in medio leviter concavum, flavidum, marginem externum versus rufo-sanguineum.

Diam. maj. $13\frac{1}{2}$ millim., min. 11; alt. 9.

This is a thin glossy species devoid of sculpture, excepting the fine lines of growth. The excessively fine lineation is invisible to the naked eye and most conspicuous under the lens on the last whorl. The form is somewhat near that of *H. antillarum*, Sowerby.

*16. *Helicina roseolabrum*.

Testa parva, globoso-depressa, solidiuscula, subnitida, grisea vel roseo-grisea, interdum linea angusta rubra ad peripheriam cincta; anfractus $4\frac{1}{2}$, vix convexiusculi, striis incrementi obliquis, aliisque minutis oblique transversis sculpti, ultimus in medio acute rotundatus, antice levissime descendens; apertura parva, parum obliqua; peristoma tenue, anguste expansum, vix reflexum, roseo-rufum, marginibus callo tenui rufo junctis.

Diam. maj. 6 millim., min. 5; alt. $4\frac{1}{3}$.

Pfeiffer's figure of *H. Dysoni* (Conch.-Cab. pl. viii. fig. 27) will be a guide as to the form of this species. The coloured lip and basal callus and the small size are characters which well distinguish this from other species. Of the three specimens under examination two have the peripheral band, the other being of a uniform vinous-grey tint.

17. *Helicina plicatula*, Pfeiffer.

Helicina plicatula, Pfeiffer, Conch. Cab. p. 13, pl. viii. figs. 39-42; Sowerby, Thesaurus, vol. iii. pl. 268. figs. 79, 80.

Hab. Martinique; St. Lucia (*Tate*); Dominica (*Guppy*).